

STATE WATER PLAN
Implementation Update
September 1993

The Department of Natural Resources and Conservation (DNRC) is required by Montana statute to develop a state water plan (Section 85-1-203, MCA). Seven sections of the plan have been adopted. This paper examines progress in implementing the first six plan sections.

SECTION: WATER INFORMATION SYSTEM

1. Design the Montana Water Information System.

A Montana Water Information System (MWIS) was designed by the Montana State Library and has been fully operational since 1989.

2. Establish a central point of contact for water information in Montana.

The MWIS provides a central point of contact for water information in Montana. In FY 1993, MWIS received a total of 297 requests for water-related information from the following type of users: state (43 percent); private (34 percent); federal (13 percent); and other (10 percent).

3. Expand the MWIS Advisory Committee to obtain input from Geologic Information System (GIS) experts.

The MWIS Advisory Committee is no longer meeting because the water information system is fully integrated into the Natural Resource Information System (NRIS) at the State Library. The NRIS Advisory Committee now oversees the program. A Water Information Specialist acts as a GIS link with the Montana Interagency GIS Technical Working Group.

4. Design quality control criteria for water information.

Data quality control criteria have been developed on a national level by several organizations including the American Society for Materials and Testing (ASMT), the U.S. Environmental Protection Agency (EPA) and the U.S. Geological Survey (USGS). Individuals and agencies are encouraged to collect water data in one of the accepted standards for the two primary databases in Montana (USGS WATSTORE and US EPA STORET). Only USGS personnel enter data into the WATSTORE system to ensure quality control. All users of STORET may enter data following the data entry format; however, quality control is not independently verified.

5. Train staff.

NRIS staff are trained to provide available water-related information to public and private organizations and citizens. Staff receive formal training in databases from the host

agency including USGS, EPA, Montana Bureau of Mines and Geology, and the U.S. Soil Conservation Service (SCS). Staff training for other data systems is furnished by the vendor. In-house training is provided to new staff members on various systems. Staff also train at Information Technology conferences.

6. Provide on-line and remote access to MWIS.

On-line and remote access generally are not available for the Montana Water Information System. System users have indicated that they prefer to have water information specialists within the NRIS program access the various databases. Some on-line service has been initiated through the state's bulletin board system. For example, updated drought information is available on the bulletin board system. NRIS is also part of the Internet System, an international network of data users and servers. Information can be traded by any Internet System user around the world. System on-line access is still being considered, although at present the budget does not allow pursuing this service.

7. Train users of MWIS.

The MWIS staff has trained personnel from the DNRC, Department of Health and Environmental Sciences (DHES), Department of State Lands (DSL), Department of Fish, Wildlife and Parks (DFWP), Department of Agriculture (DAg) and Department of Transportation (DOT) to use the MWIS system. Training is also offered to personnel of federal agencies, the university system, private consulting firms, and individuals. Training by the MWIS staff is still available upon request.

8. Develop a system for tracking data collection efforts.

NRIS created a software package (Master Water Data Index) that accesses the USGS data tracking system known as NAWDEX. This software tracks water data that includes site location, parameters measured, and location of stored information. The USGS review of the software is complete. Currently, NAWDEX is being used by NRIS personnel. The software will soon be made available in USGS offices in all 50 states and cooperating state agencies.

The NAWDEX system depend on others to collect the data. At the outset of software development, the USGS conducted a survey of university, state, and local resource agencies to identify ongoing data collection efforts. The USGS is not attempting to catalog every data source, but routinely contacts users as a check on data collection activities. At times, the competition between researchers makes pursuing data sources a sensitive issue. For information that is in high demand, NRIS will seek out data or subscribe to particular databases.

SECTION: INSTREAM FLOW PROTECTION

1. Promote more timely acquisition of water reservations for instream flows.

Legislation was passed in 1989 to satisfy this recommendation. Originally, the priority of a water reservation was the date the Board of Natural Resources and Conservation acted on the reservation application. The law was amended so that the priority is the date the board receives a notice of intention to file a water reservation application. The board may still establish the relative priority among all the reservants with the same priority date.

2. Evaluate the relative security of instream flow reservations.

The only evidence regarding the security of instream flow reservations is from the 10-year review of the Yellowstone basin reservations. In this review, no water has been reallocated from instream flow to other uses since 1978. This case would indicate that, to date, water reservations are relatively secure. No long-term data are available.

3. Allow the Department of Fish, Wildlife and Parks to lease water for instream flow purposes.

In 1989, legislation was passed that authorized water leasing on up to five streams with the approval of the Board of Natural Resources and Conservation and the Fish and Game Commission. The 1991 legislature expanded this number to 10 streams; and the 1993 legislature further increased it to 20. In 1991-92, DFWP received approval to conduct instream flow lease studies on the following seven creeks: Hells Canyon Creek, Tin Cup Creek, Blanchard Creek, Cedar Creek, Big Creek, Mill Creek, and Swamp Creek.

To date, two water leases have been signed. Both leases are on Mill Creek. No objections were filed in the water right change proceeding that was required to establish the leases. One lease is for flushing flows for spawning, and the other lease is to maintain base instream flow conditions. The DFWP is preparing four additional water leasing applications on the following four creeks: Cedar Creek (Yellowstone), Blanchard Creek (Blackfoot), Tin Cup Creek (Bitterroot), and Hells Canyon Creek (Jefferson).

4. Support public entities in purchasing and leasing water stored in reservoirs.

The DFWP continues to work with both public and private reservoir operators to improve instream flow conditions below reservoirs. For example, the DFWP signed a 13-year water lease agreement with DNRC for 10,000 acre-feet annually from Painted Rocks to augment instream flows in the Bitterroot River.

The DNRC and DFWP have two other agreements that (1) manage reservoir releases from the Tongue River Dam for instream flow purposes, and (2) improve the spawning habitat for arctic grayling as part of the Middle Creek Dam rehabilitation project.

5. Assess the feasibility of new storage projects to enhance instream resources.

Legislation resulting from the water storage plan section requires the governor to submit to each regular session of the legislature a report identifying a list of specific water storage projects proposed for development. This law also specifies that first preference for the use of state funding is the rehabilitation of existing, high-hazard storage projects; second is the rehabilitation and enlargement of existing facilities; and third is the construction of new water storage projects.

In the governor's 1993 report *Water Storage in Montana*, only one new storage project was identified as a priority, and the report does not list instream flow enhancement as a project benefit. A statewide assessment of new storage projects specifically for instream flow enhancement has not been pursued; rather, this possibility is examined on a case-by-case basis as individual water storage projects are considered. Given the current fiscal situation of the state and the need to rehabilitate existing projects, new storage projects for instream flow enhancement are not anticipated in the near future.

6. Support cooperative solutions at the local level.

In response to this recommendation, the 1989 legislature passed a measure to encourage the mediation of local water right disputes. Further, basin planning activities are ongoing in the Musselshell, Milk, and Upper Clark Fork basins and are being considered in other areas. Finally, the *Montana Water Plan Section: Drought Management* calls for the establishment of local drought advisory committees as another mechanism for local, cooperative solutions. Thirty-four local drought advisory committees met in 1992.

7. Facilitate research on instream flow.

As a result of this recommendation, a graduate student was funded by the Water Resources Center to evaluate instream flow quantification methods under the direction of Dr. Bob White at Montana State University (MSU). The student's dissertation requires additional work but is expected to be completed in 1993. The DNRC will receive a copy of the dissertation as soon as it is finished.

8. Evaluate instream flow quantification methods.

See previous recommendation.

9. Evaluate the physical availability of water to meet instream flow demands.

A water model for the Missouri River basin is complete and has been used to evaluate the physical and legal availability of water in the basin for instream flow needs. This model showed that over 240 streams or reaches have been identified as dewatered during dry conditions. Similar models are being developed for the Clark Fork and Flathead River basins. Available basin data are now being entered, and the later models will be complete in two to three years.

SECTION: FEDERAL HYDROPOWER LICENSING AND STATE WATER RIGHTS

1. Work within the federal hydropower licensing system to influence Federal Energy Regulatory Commission (FERC) decisions on siting and operation of hydropower projects in Montana.

The Montana Power Company (MPC) completed its final application to FERC on November 30, 1992, for relicensing nine hydropower facilities on the Missouri and Madison rivers. DNRC is the lead agency in reviewing the relicensing application as required under the Major Facility Siting Act. DNRC, in cooperation with DFWP and DHES, has submitted comments to intervene in the relicensing process. The intervention gives the department standing to comment on the application as well as to participate in the contested case hearing. The two-year time line for relicensing may be extended if FERC requires an environmental impact statement (EIS).

In January 1993, DNRC filed a request with MPC for additional studies to evaluate impacts of relicensing fully. Montana Power Company agreed to form a Madison-Missouri Water Quality Committee to revise water quality monitoring plans. That committee is now meeting.

DFWP was consulted on a mitigation plan for fisheries and recreation enhancement. MPC has modified its plan to meet most of DFWP's concerns. State and federal fisheries agencies have special consideration in the relicensing proceedings as required by the federal Electric Consumers Protection Act.

2. Pursue statutory changes to the federal hydropower licensing system to maximize state-level control over the allocation and management of Montana's water.

A hydropower coordinating committee, with representatives of small and large hydro projects in Montana, met three times in 1990-91 to discuss congressional proposals to amend the Federal Power Act. Because the federal legislation died at the end of the session, the committee felt that there was no need to continue meeting until relevant action requires.

DNRC staff have provided letters of testimony, under the signature of the governor, supporting various congressional proposals that would accomplish the major intent of this plan recommendation: that is, to give states primary authority related to hydropower water allocation decisions. None of these bills has passed out of congressional committees.

3. Support litigation that has the potential to overturn the First Iowa Decision of the U.S. Supreme Court.

The State of Montana filed an *amicus curiae* brief with the U.S. Supreme Court in California v. FERC, the so-called "Rock Creek" case, in support of overturning the First

Iowa decision which, since the 1920s, has held that the Federal Power Act preempts state regulation of water use for hydropower projects. The U.S. Supreme Court did not overturn the decision.

DNRC continues to track this issue. A recent Washington Supreme Court case may establish a state's rights to add some water use and flow specifications in connection with its water quality permitting authority. On April 1, 1993, the Washington Supreme Court handed down a unanimous decision in Washington Department of Ecology v. Public Utility District #1 upholding the state's authority to set streamflow levels as part of the 401 water quality certification permit under the Clean Water Act. FERC is bound by Section 401 to abide by state law regarding water quality concerns. In this case, Washington state law acknowledges base stream flows for purposes of sustaining wildlife, fish, scenic, aesthetic, and other values. The Washington State Supreme Court affirmed the state's right to include maintenance of those values as a condition in the 401 water quality certification permit. The public utility has petitioned the U.S. Supreme Court for *certiorari*. As of this date, the court has not decided whether it will review the case. That decision is expected by November 1993.

SECTION: AGRICULTURAL WATER USE EFFICIENCY

1. Enact water salvage legislation.

The 1991 legislature passed a bill that defines salvage water and provides a process for water right holders to beneficially use, sell, or lease their salvaged water. "Salvage" is defined as "a means to make water available for beneficial use from an existing valid appropriation through application of water-saving methods" (Section 85-2-102(13), MCA). In 1992, DNRC received four applications from water right holders to use salvaged water for expanded irrigation. To date, no applications for salvaged water have been submitted in 1993.

2. Seek federal Pick-Sloan funding for the rehabilitation of irrigation projects.

The 1989 state legislature adopted a joint resolution (HJR 22) urging Congress to authorize the use of Pick-Sloan Missouri basin funds for rehabilitating irrigation projects in the upper Missouri basin states.

3. Give special consideration to irrigation efficiency improving projects in the Water Development Program.

The existing process and criteria for ranking applications in the Water Development Program already consider conservation and, therefore, were not revised. The Water Development Program provides additional points for those projects that improve irrigation efficiency.

4. Evaluate the effectiveness of education and research efforts for improving agricultural water use efficiency.

A comprehensive evaluation has not been undertaken. The Montana Watercourse workshops and programs are reviewed and evaluated by the Montana Watercourse Advisory Committee based on committee member attendance and participant exit questionnaires.

5. Provide organized agricultural water use groups with information on available information and assistance programs for improving water use efficiency.

A water development grant to the Montana Watercourse from the 1991 legislature generated a variety of educational workshops and activities that will assist agricultural water users in achieving improved efficiencies. A pilot "Water Conservation and Irrigation Water Management Workshop" conducted in 1993 in Huson, Montana, provided valuable feedback from participants for the development and delivery of similar workshops in other Montana locations.

Other activities that support education on agricultural water use efficiency include a directory of water conservation information and education resources developed by Montana Watercourse, which is expected to be available for distribution in fall of 1993. Another resource entitled *Reference Guide to Montana's Water* is being prepared. These efforts are part of the grant project described above. These reference materials will be made available to local governments and water user groups.

During the drought of 1992, the MSU Extension Service prepared a "Drought Information Packet" and made it available statewide through County Extension Offices. The materials in the packet targeted an agricultural audience and included information regarding agricultural water use efficiency. Public service announcements (PSAs) and video-shorts are being developed by the Montana Watercourse for television and radio focusing on the importance of the State Drought Management Program as well as individual and local efforts to use water efficiently. These PSAs are scheduled for broadcast in 1994.

SECTION: DROUGHT MANAGEMENT

1. Pursue the calculation of the Palmer Drought Index (PDI) for smaller geographical areas.

At the time the plan section was adopted, the PDI was calculated for only seven broad regions of the state. In February 1992, about 80 stations reported. The PDI is now reported from 154 stations across the state.

2. Encourage the continued development and revision of basin-specific Surface Water Supply Indexes (SWSI).

From 1991 to 1993, the number of SWSI river basins statewide has increased from 28 to 48.

3. Improve data collection and forecasting by getting the information to those who are vulnerable to drought.

The number of local drought advisory committees reached 30 in 1992. These committees serve as a contact point for the exchange of information between the localities and the state. A survey is under way to determine the effectiveness of local drought advisory committees. In addition, coordination between the drought advisory committee (DAC) and the press and the media has been very good. Efforts are ongoing to expand coverage by having maps printed in local newspapers.

4. Coordinate the efficient and timely assessment of impacts related to various water uses. A list of the individuals with the expertise to assess impacts should be maintained.

The state drought plan will set forth the responsibilities of each state and federal agency with respect to particular water uses. The state drought plan will be completed in the fall of 1993. As drought monitoring indicates worsening conditions, agencies are responsible for assessing the types of impacts and the extent of resource or economic damage that will likely occur. Assessments dictate the timing and type of response by agencies. DNRC appendices to the new state drought plan will provide lists of individuals within agencies with assessment expertise. Assessment is expected to improve with the adoption and implementation of the state drought plan.

5. Replace the current drought plan, by directive of the governor, with a document that incorporates the recommendations of the state water plan.

The state drought plan is being revised and should be finalized by the end of 1993.

6. Reassign the responsibility for state drought management coordination from Disaster and Emergency Services (DES) to the Drought Advisory Committee (DAC).

Legislation was passed in 1991 to establish the state drought advisory committee (DAC) and to change staff responsibility from DES to DNRC. This committee has the responsibility for monitoring state drought conditions, coordinating state and local response actions, and disseminating information.

7. The drought plan should recommend specific actions corresponding to numerical indicators of drought severity.

The draft drought plan will propose a combination of quantitative thresholds and presence of adverse effects for triggering responses.

8. In addition to the PDI and the SWSI, other types of data should be used to indicate the onset and the severity of drought.

"Real time" data also are being gathered from the National Weather Service, USGS, Bureau of Reclamation, and Soil Conservation Service. Other types of data, including the presence and degree of effects, are summarized in the monthly *Water Supply and Moisture Conditions* reports.

9. Update the list of state and federal assistance programs in the state drought plan.

This recommendation was met with the completion of the *Montana Drought Relief Assistance Reference Guide* in March of 1992.

10. Provide technical and financial assistance to local drought advisory committees (LDACs) for promoting drought preparedness.

Technical assistance was made available to the 30 LDACs through information packets. An operations manual for use by LDACs will be assembled in the coming months. Financial assistance is not available at this time.

11. Support continuation of the Federal Crop Insurance Program.

The Federal Crop Insurance Program is still available. Federal disaster assistance was made available from the U.S. Department of Agriculture (USDA) to 41 counties in 1992-93 to compensate for losses during 1992.

12. Apply for grant funding for a pilot program in drought management.

A water development grant of \$117,617 for a pilot program for drought monitoring implementation was awarded jointly to the State Library, DNRC, SCS, and the State Climate Center. The grant funded expansion of SWSIs and the PDI, GIS mapping of drought information, and development and publication of the state drought plan. The Montana Watercourse program at Bozeman received a grant for conservation education including drought-related education.

13. Encourage the use of existing educational programs for drought awareness.

Public education for drought awareness is being accomplished using existing educational programs within state agencies and the Montana Watercourse.

14. Support ongoing research into ways to improve drought monitoring, assessment, and mitigation.

Most of the state and federal agencies on the Drought Advisory Committee are improving their data collection capabilities. As a result, DAC is able to make better assessments of drought conditions. DNRC staff continue to review research and new technologies to enhance drought reporting and monitoring. In addition, the state universities update DNRC on new developments in this field.

15. Publish and distribute a comprehensive annotated directory of available educational resources about water conservation.

To met this recommendation, a subcommittee of the Drought Advisory Committee opted to develop a directory that would focus on drought mitigation information. Several state agencies and the Montana Watercourse are in the process of creating this comprehensive water conservation guide.

16. Better utilize the media for informing the public about drought management options and activities.

The DAC and its staff developed good relationships with the media in 1992-93. Reproducing color drought graphs in newspapers appears to be the most successful approach.

17. Increase the educational emphasis given to forest and range management practices for the minimizing of drought impacts.

The DAC has worked to coordinate the exchange of information with conservation districts, the Extension Service, and the Montana Department of Agriculture. The educational directory of drought information will emphasize agricultural water use.

DNRC's Conservation Districts Bureau maintains and disseminates a variety of materials on range management and grazing practices. SCS has a new, cooperative program called the "Grazing Initiative" where workshops are conducted across the state to educate livestock producers on plant responses to grazing under a variety of conditions, including drought. This program encourages and assists agricultural producers in developing plans for their operations. Also, DSL and DNRC work with private groups such as the Montana Riparian Association and the Montana Stockgrowers Association in developing and sharing range management educational materials in video and written formats.

18. Inventory operating plans of reservoirs to insure drought contingency plans.

An inventory is complete. The state of Montana does not have drought contingency plans for state-owned reservoirs because the water users are responsible for reservoir operations. Most contracts between the state and water user associations include clauses dictating water delivery of a prorated amount to each user based on actual reservoir water levels. Federal reservoirs are actively managed for drought conditions.

19. Develop and implement drought plans for state reservoirs.

See above recommendation.

20. Establish stronger economic and other incentives for private investments in water conservation.

Staff are currently examining what incentives other states are using to stimulate investment in conservation. Also refer to water salvage legislation resulting from the *Montana State Water Plan Section: Agricultural Water Use Efficiency* described previously.

21. Consider feasible water storage where it will increase water supply security.

Water storage projects are still an option considered in water-deficit areas. Most state storage funding is being used to rehabilitate of unsafe, existing storage projects and increase their capacity, if cost-effective. In the foreseeable future, funds in the water storage account will be used to rehabilitate the Tongue River Dam.

22. Consider basin closure by petition of local water users to avoid aggravation of water shortage situations and overappropriation.

The Upper Clark Fork basin planning committee is holding a public meeting on October 12, 1993 to inform the public about the options of basin closure and controlled groundwater areas.

23. Encourage voluntary water conservation by domestic, municipal, and industrial users.

DNRC staff with the assistance of DHES have developed PSAs to encourage this type of water conservation. The drought education directory will contain information for these users.

24. Clarify state law so that water rights holders who conserve water are clearly allowed to sell or lease salvaged water in a manner that does not adversely affect water rights.

As passed by the 1991 legislature, Senate Bill 265 provides for the use, sale, or lease of salvaged water with the water right holder retaining ownership. The alternative use of the water may not adversely affect prior appropriators.

25. Improve water conveyance efficiencies in agricultural, municipal, and industrial uses.

The Water Development Grant and Loan Program administered by DNRC provides funding for project that improve conveyance efficiencies. Also, DNRC and the SCS offer technical assistance to conservation districts and irrigation districts to improve efficiencies.

26. Clarify state law to allow voluntary, temporary changes of water rights and contract water exchanges.

The 1991 legislature passed Senate Bill 265 that amended the Water Use Act to allow for these types of water right changes.

27. Urge the Board of Natural Resources and Conservation (BNRC) to adopt rules for the installation of water-metering devices to resolve conflicts on water-short drainages.

The 1991 legislature enacted House Bill 908 directing the BNRC to adopt rules requiring the acquisition, installation, and maintenance of water-measuring devices on chronically dewatered watercourses or portions of watercourses. Rules have been adopted by the DNRC, and these five watercourses have been selected for initial action: Mill Creek and Rock Creek in the Yellowstone River basin, One Horse Creek in the Bitterroot River basin, Tenmile Creek in the Missouri River basin, and the Musselshell River. Public meetings have been held or are scheduled for water users of the designated streams. Study reports have been drafted on Mill Creek and One Horse Creek, and the decision has been made to install measuring devices on those streams. Studies are ongoing concerning the remaining three streams.

28. Find ways to expedite the resolution of water use conflicts and water rights enforcement during drought.

DNRC has established a policy detailing the procedure for the resolution of water use conflicts between users during times of drought. The policy is available upon request from the Water Resources Division. DNRC, SCS, conservation districts, and private organizations can initiate a coordinated planning effort to address a wide range of water and land use concerns for a particular basin.

29. Develop a model water conservation ordinance for use by municipalities and rural domestic water suppliers.

A model ordinance will be part of the operations manual for local drought management currently being developed by DNRC.

SECTION: WATER STORAGE

Subsection: Water Storage Policy

1. The priority of new water storage projects should be established according to which projects best satisfy the certain criteria as follows:

- *solve the most severe problems;**
- *provide multiple uses and benefits;**
- *provide for public uses;**
- *show strong evidence of broad citizen support;**
- *have the ability to obtain non-state sources of funding;**
- *protect and seek to enhance social, ecological, cultural, and aesthetic values;**
- *improve local and state economic development;**
- *help resolve Indian and federal reserved water rights;**
- *support water conservation activities;**
- *promote the use of water reserved under Montana law**

These criteria were enacted in statute by the 1991 legislature.

2. Identify the high-hazard projects most needing repair based on the criteria listed under 1 and the following: protect public safety and impacts of not repairing project.

Based on these criteria, the Tongue River Dam received the highest priority for rehabilitation and work began in November 1992. Also, the North Fork Smith River Dam near White Sulphur Springs and the Vaux Dams on Lone Tree Creek near Sidney are receiving water development loan and/or grant funds for rehabilitation.

3. Allocate the state funds available for water storage based on the following order of preference: 1) resolve threats to life and property posed by high-hazard facilities that are in an unsafe condition; 2) improve and/or expand existing water storage facilities; 3) plan and/or construct new water storage facilities, including onstream, offstream, and nonstructural.

State funds have been allocated as recommended under these new statutory criteria. All funds from the Water Storage Special Revenue Account (\$460,000) are being used to rehabilitate the unsafe and dangerous condition of the Tongue River Dam.

Subsection: Water Storage Financing

4. Document existing programs. Creating and updating a directory may facilitate the financing of water storage projects.

Because requests have not been received for this information, priority has been given to more pressing matters.

5. Designate a person as a water storage development coordinator to facilitate efforts to develop water storage projects.

DNRC has been unable to reallocate a position for this purpose. DNRC, however, is coordinating the preliminary feasibility assessment of the proposed Ruby Creek Dam in the Big Hole drainage--the only project proposed at this time.

6. Create a Water Storage Special Revenue Account to be used exclusively for funding water storage projects as identified and prioritized above.

The 1991 legislature created a Water Storage Special Revenue Account. The Tongue River Dam rehabilitation project received the entire account balance of \$460,000 in 1992.

7. Seek authorization for allocating a higher percentage of existing nonrenewable resource funds (e.g. coal severance tax revenues) to the development of Montana's renewable resources, particularly water.

The 1991 legislature did not authorize this proposed legislation.

8. Authorize the use of 25 percent of the funds over and above the statutory minimum balance of \$100 million of the Resource Indemnity Trust (RIT) Fund for water storage projects.

The 1991 legislature did not authorize the recommended reallocation.

9. Encourage Resource Conservation and Development areas (RC&D's) to develop funding packages and create broad-based coalitions to support water storage development.

RC&D's are encouraged to develop broad-based coalitions and financing to support water storage development. Eastern Plains RC&D assisted in securing funds for the Cherry Creek Reservoir project and the Bitterroot RC&D supported the Como Dam project.

10. Make use of existing authorities associated with public entities such as conservancy districts, irrigation districts, and water and sewer districts to tax and collect fees for purposes of funding water storage projects.

The Bureau of Reclamation, in cooperation with the Bitterroot Irrigation District, secured \$2.9 million in federal funds to rehabilitate Como Dam. As a condition of federal funding, the Bitterroot Irrigation District agreed to pay 15% of rehabilitation costs through fee collection. Dam rehabilitation is complete.

11. Identify potential sources of private sector funding and integrate these on a site-specific basis.

When new viable storage projects are proposed, private sector funding is pursued on an individual project basis. The Cherry Creek Reservoir project is in the study phase. The BLM committed \$150,000 to study the feasibility of the project, and the state legislature

appropriated another \$100,000 that was matched with \$50,000 from "Friends of Cherry Creek Dam, Inc." of the City of Terry.

12. Continue having irrigation, hydropower, municipal, and industrial beneficiaries repay some of the project costs through user fees, and allow the sponsor together with the funding source to make site-specific recommendations on whether those fees will adequately cover the costs of the benefits.

Beneficiaries continue to pay user fees to support existing projects. No new projects have been proposed since the plan section was adopted.

13. Conduct a study on the feasibility of having recreational beneficiaries repay a portion of the project costs associated with recreational opportunities.

DFWP, in cooperation with DNRC, completed a recreational user fee study. The study recommendation is to consider use of a portion of the motor boat fuels tax and the federal Dingell-Johnson fund (an excise tax on fishing) to cover those rehabilitation costs directly associated with recreation.

14. Continue to use tax revenues to provide a portion of fish, wildlife, recreational, and other environmental benefits associated with water storage projects.

"Nonreimbursable" costs are built into projects. Tax revenues continue to subsidize water storage projects in the form of loans and grants under the Water Storage Special Revenue Account and the Water Development Fund.

15. Charge individuals and groups that benefit from the flood control and navigation benefits of a new water storage project. Create one of the several resource districts possible under Montana law to collect fees and/or require beneficiaries to pay taxes.

No new water storage projects have been proposed since this plan section was adopted. Therefore, no attempt has been made to tax individuals or groups for those benefits.

Subsection: Water Storage Regulations

16. Identify unnecessary duplications and inconsistencies and recommend corrective measures.

Dam safety on federal lands was regulated by both the respective federal agency (U.S. Forest Service or Bureau of Land Management) and DNRC. In order to save dam operators the time and expense of complying with two similar regulatory processes, the legislature authorized the state to terminate its review of dams on federal lands.

17. Evaluate the Montana Dam Safety Act and implementing regulations to: a) determine the acceptable degree of risk to public safety and appropriate allocation of responsibility for that risk between the public, government, and dam owners; b) determine whether the definition of a high-hazard dam should be modified; c)

determine whether the high-hazard classification should be modified; and d) determine whether the DNRC should be given greater discretion to substitute alternative means of addressing risks, such as early warning systems, for structural design requirements.

The Legislative Water Policy Committee studied these issues during the 1992 interim. In the 1993 session, the committee proposed two bills related to dam safety. Both bills were enacted. The first bill streamlined the process of addressing complaints regarding the construction and operation of dams by assigning DNRC sole responsibility. Before that responsibility had been fragmented between DNRC, the county commissioners, and the district court. In addition, the bill authorized inspections more often than once every 5 years if substantive evidence indicates that to be necessary.

A second bill established a negligence standard for non-high hazard dams constructed and operated under the supervision of an engineer, if those dams have a permit from the state and are properly maintained. Previously, the owners could be held to a more stringent liability standard. The bill further added a civil penalty of \$1,000 per day for dams with a capacity of over 50 acre-feet if they are not in compliance with the Dam Safety Act.

18. Revise the Montana Water Use Act to extend the 10-year limit on developing water use permits associated with water storage development.

The Montana Water Use Act was revised by the 1991 legislature to replace the 10-year limit with "a reasonable time period" for developing provisional water use permits associated with water storage projects.

19. Provide public education to encourage water reservations for multipurpose uses.

Education and information was provided by DNRC contacting public entities in the Missouri basin at the outset of water reservation proceedings.

20. Evaluate the Montana Water Use Act and the desirability of allowing private entities to obtain water reservations; and designating or creating a public body to advance water reservation applications for private entities.

Since the Montana Water Use Act was modified to allow a "reasonable time" to develop water permits for reserved water, it was felt that water reservations for private entities were not necessary. Private entities can now apply for a provisional water use permit for large, long-term projects.

21. Prepare, distribute, and regularly update a directory of laws and regulations applicable to water storage; and a booklet describing the major requirements and identifying administrative agencies; both suitable for use by laypersons.

A directory of water storage laws and regulations is available through the DNRC's Water Resources Division. To date, the specific booklet described above has not been developed, and there have been no requests for this type of information.

22. Develop and administer a targeted program of education to promote awareness of legal requirements and sources of information applicable to the development and operation of water storage projects.

DNRC conducts annual workshops for federal and state high-hazard dam owners to update them on dam safety regulations. Also, DNRC dam safety engineers meet annually with individual dam owners to provide the same information.

23. Designate a person to serve as an information coordinator for permitting and regulatory issues related to water storage development.

DNRC has been unable to reallocate a position for a water storage information coordinator.

24. Develop a public process to identify problems and develop appropriate solutions for repairing wilderness area dams.

DNRC brought the issue of maintenance of dams in wilderness areas to the U.S. Forest Service. As a result, the Forest Service held public hearings with DNRC assistance. Based on those hearings, the Forest Service has changed its policy so that maintenance and repair of wilderness area dams are at the discretion of the area ranger.